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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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09/555,263

05/26/2000

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EXAMINER

HARPER, KEVIN C

ART UNIT

PAPER NUMBER

2666

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DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/555,263

Applicant(s)

SUZUKI ET AL

Examiner

Kevin C. Harper

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 May 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3-4</u> . | 6) <input type="checkbox"/> Other: _____ |

Drawings

1. The drawings are objected to because fig. 2, item 10 and fig. 3, item 20 require descriptive wording (37 CFR 1.83(a)).
2. Figure 21 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated (specification, page 2, lines 12-13). See MPEP § 608.02(g).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: on page 13, lines 8-14, each occurrence of "ATN" should be --ATM--. Appropriate correction is required.

Claim Objections

4. Claim 19 is objected to because of the following informalities: "ions" in line 1 should be --communications-- . Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 5-6, 8-9, 11-12, 15-16 and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamada et al. (US 4,530,085).

5. Regarding claims 1, 6, 9, 11, 16 and 19, Hamada discloses a method of detecting a failure in a ring network (fig. 11) having bi-directional dual loops and having one node as a central station (fig. 11, item CST1) and the other nodes (STn) as remote stations. The method comprises the central station transmitting failure monitoring information to respective remote stations using the first transmission line and the second transmission line (fig. 11, counter-clockwise communication to ST1-ST3; col. 6, lines 43-50; col. 6, line 55 through col. 7, line 2), the remote stations looping back failure monitoring information using the opposite line (col. 6, lines 64 through col. 7, line 2) where the central station identifies a failed part of the ring network based on whether or not failure monitoring information was looped back at each of the remote stations (col. 7, lines 3-7 and 18-23).

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6. Regarding claim 2 and 12, either of the lines are used as a backup or secondary line in case of failure (col. 2, line 65 through col. 3, line 3).

7. Regarding claim 5 and 15, the failure monitoring information is periodically transmitted from the central station to the remote stations (col. 2, lines 17-30; col. 7, lines 24-27).

8. Regarding claims 8 and 18, the central station switches paths so as to bypass the identified failed part (col. 7, lines 8-11; fig. 14).

Claims 10 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Saitoh (US 6,765,876).

9. Regarding claims 10 and 20, Saitoh discloses a method of detecting a failure in a bi-directional, dual-ring network (fig. 1; col. 1, lines 15-20 and 23-24; col. 18, lines 50-57), where communications takes place on established paths (fig. 9). The method comprises nodes transmitting failure monitoring information to neighbor nodes using a transmission line (col. 18, lines 50-57 and 58-54) and neighboring nodes looping back and returning the failure monitoring information, whereby the nodes that receive the failure monitoring information detect individual failures based on whether or not the failure monitoring information has been received correctly from the neighboring nodes (col. 18, lines 50-53).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamada et al. (US 4,530,085) in view of Niwa (US 4,769,807).

10. Regarding claims 3 and 13, Hamada discloses a dual loop network using loopback among nodes at disparate sites (fig. 11). However, Hamada does not disclose that the nodes accommodate local communications terminals. Niwa discloses nodes in a dual loop network that support local communications terminals (fig. 1, item 6). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have the nodes in the invention of Hamada support local communication terminals in order to provide paid connectivity services for end users.

Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamada et al. (US 4,530,085) in view of Tokura et al. (US 5,469,428).

11. Regarding claim 4 and 14, Hamada discloses a dual loop network using loopback among nodes (fig. 11). However, Hamada does not disclose that the nodes are ATM switches, that failure monitoring information is an ATM cell and that the return of failure monitoring information is performed by establishing paths through the ATM network. Tokura discloses nodes of a dual ring as ATM switches (fig. 2; abstract, lines 1-2) where failure monitoring information is transmitted in ATM cells through established paths (col. 9, lines 31-35; fig. 14a, table 1; note: normal VPI and

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loopback VPI). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to use ATM in the invention of Hamada in order to provide controlled and regulated connection-oriented communications.

Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamada et al. (US 4,530,085) in view of Saitoh (US 6,765,876).

12. Regarding claims 7 and 17, Hamada discloses a dual loop network using loopback among nodes (fig. 11). However, Hamada does not disclose that the nodes monitor for a network failure. Saitoh discloses a method of detecting a failure in a bi-directional, dual-ring network (fig. 1; col. 1, lines 15-20 and 23-24; col. 18, lines 50-57), where communications takes place on established paths (fig. 9). The method comprises nodes transmitting failure monitoring information to neighbor nodes using a transmission line (col. 18, lines 50-57 and 58-54) and neighboring nodes looping back and returning the failure monitoring information, whereby the nodes that receive the failure monitoring information detect individual failures based on whether or not the failure monitoring information has been received correctly from the neighboring nodes (col. 18, lines 50-53).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have nodes of the network determine faults in the invention of Hamada in order to provide a robust fault detection through distributed or cooperative network monitoring.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kobayashi et al. (US 4,930,119; fig. 5A), Takahashi (US 5,949,754; figs. 3 and 8A), and Dempsey et al. (US 5,282,200; figs. 5-6) each discloses a master station for controlling fault

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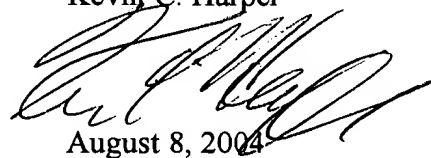
monitoring within a dual ring network. Ellis et al. (US 6,256,292) discloses a dual ring ATM network (fig. 5A and abstract) having fault correction capabilities.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 703-305-0139 (as of August 25, 2004, the number will be 571-272-3166). The examiner can normally be reached weekdays from 11:30 AM to 8:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 703-308-5463 (as of August 25, 2004, the number will be 571-272-3174). The centralized fax number for the Patent Office is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only (applications must be associated with a customer number). For more information about the PAIR system, see pair.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin C. Harper



August 8, 2004